

REMARKS

The Applicant respectfully requests reconsideration of the present Application in view of the foregoing amendments and in view of the reasons that follow.

This amendment adds, changes and/or deletes claims in this Application. A detailed listing of claims that are, or were, in the Application, irrespective of whether the claim(s) remain under examination in the Application, is presented, with an appropriate defined status identifier.

Status of the Claims

Claim 21 has been cancelled without prejudice to further prosecution on the merits.

Claims 19, 23, 24 and 36-37 have been amended.

Claims 19-20, 22-38 and 71-80 are now pending.

Claim Rejections – 35 U.S.C. § 112 ¶ 2

On page 2 of the Office Action, the Examiner rejected Claims 21, 23, 36, 37, 72-75 and 77-80 under 35 U.S.C. § 112 ¶ 1 as failing to comply with the enablement requirement. Claim 21 has been cancelled without prejudice to further prosecution on the merits.

Claims 23, 36 and 37

The Examiner stated that the “limitations regarding the various steps occurring ‘substantially at the same time’ is not adequately supported by the specification.” The Applicant respectfully disagrees. The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosure in the application coupled with information known in the art without undue experimentation. See United States v. Telecommunications, Inc., 857 F.2d 778, 785 (Fed. Cir. 1988); M.P.E.P. § 2164.01. Applicant contends that the disclosure of the application as filed, including the claims and figures, would teach one reasonably skilled in the art to make or use the subject matter of Claims 23, 36, and 37 without undue experimentation

(see, e.g., FIGURES 3-17). Based on the disclosure, one reasonably skilled in the art would be able to utilize the method of Claims 23, 36 and 37 wherein certain steps occur substantially at the same time. For example, paragraphs 60-65 on pages 18-21 describe a method for manufacturing a screen assembly where various steps may be performed at substantially the same time as recited in Claims 23, 36 and 37. For clarity, Claims 23, 36 and 37 have been amended and are believed to be in compliance with 35 U.S.C. § 112 ¶ 1. The Applicant requests withdrawal of the rejection of Claims 23, 36, and 37 under 35 U.S.C. § 112 ¶ 1.

Claims 72-75 and 77-80

The Examiner stated that the limitations “regarding certain steps commencing proximate the center of a bar and progressing toward the corners is also not properly supported.” The Applicant respectfully disagrees. Applicant contends that the disclosure of the application as filed, including the claims and drawings, would teach one reasonably skilled in the art to make or use the subject matter of Claims 72-75 and 77-80 without undue experimentation (see, e.g., FIGURES 15 and 16). For example, paragraphs 57-60 on pages 17-19 describe a method for manufacturing a screen assembly where certain steps commence at suitable locations such as the center of a bar (as shown in FIGURE 15) as recited in Claims 72-75 and 77-80. The Applicant requests withdrawal of the rejection of Claims 72-75 and 77-80 under 35 U.S.C. § 112 ¶ 1.

Claim Rejections – 35 U.S.C. § 102

On page 2 of the Office Action, the Examiner rejected Claims 19-23, 27, 28 and 71 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,331,223 titled “Method of Fabricating Adhesively Secured Frame Assembly” to Wylie (“Wylie ‘223”).

The Examiner stated that:

[Wylie ‘223] discloses encapsulating (column 24, lines 11-17) a tensioned screen in adhesive within tapered slots (column 24, lines 32-37). In an alternative embodiment, as discussed in column 33, lines 13-20, adhesive is applied, then the roller is used to push the screen in the slot and then the adhesive is cured. This clearly indicates that the adhesive is applied before the screen is placed in position by the roller. The claims requiring that certain steps occur

simultaneously at the same time is met as best understood in light of the 112(1) rejection above. Regarding “fabric”, screen mesh clearly meets the broad definition of “fabric”.

Wylie ‘223 is directed to a “method of fabricating adhesively secured frame assembly” including loading a pre-assembled screen frame having adhesive on a mounting surface onto a blocking table, spreading screen cloth across the mounting surface, melting the adhesive, and pushing the screen with pins so that the screen contacts the adhesive and allowing the adhesive to cool. The melting step takes approximately 7-10 seconds and the cooling step takes approximately 5-15 seconds (see col. 19, lines 45-67 and col. 20, lines 1-58; and FIGURES).

Claim 19 is in independent form and recites a “method for manufacturing a screen assembly” comprising, in combination with other steps, “applying a predetermined quantity of curable compound onto the portion of the screen disposed within the tapered slot,” and “curing the compound to mechanically interlock the screen to the screen frame at a predetermined tension” wherein the “applying step and the curing step occur at substantially the same time.” Claims 20, 22-23, 27, 28 and 71 depend from independent Claim 19.

Wylie ‘223 does not identically disclose a “method for manufacturing a screen assembly” comprising, in combination with other steps, “applying a predetermined quantity of curable compound onto the portion of the screen disposed within the tapered slot,” and “curing the compound to mechanically interlock the screen to the screen frame at a predetermined tension” wherein the “applying step and the curing step occur at substantially the same time” as recited in independent Claim 19. The rejection of Claim 19 over Wylie ‘223 is improper. Claim 19 is patentable over Wylie ‘223.

Similarly, Wylie ‘223 does not identically disclose a method wherein a “screen is tensioned while the compound is being cured” (Claim 20) or a method wherein the “trimming step, applying step, and curing step occur at substantially the same time” (Claim 23).

Further, dependent Claims 20, 22-23, 27, 28 and 71, which depend from independent Claim 19, are also patentable. See 35 U.S.C. § 112 ¶ 4. Dependent Claim 21 has been cancelled to further prosecution on the merits.

The Applicant respectfully requests withdrawal of the rejection of Claims 19-23, 27, 28 and 71 under 35 U.S.C. § 102(b).

Claim Rejections – 35 U.S.C. § 103(a)

On page 3 of the Office Action the Examiner rejected Claims 24-26, 29-38 and 76 as being obvious over U.S. Patent No. 6,331,223 titled “Method of Fabricating Adhesively Secured Frame Assembly” to Wylie (“Wylie ‘223”) in view of U.S. Patent No. 6,156,089 titled “Two-Stage Air Filter with Multiple-Layer Stage and Post-Filter Stage” to Stemmer et al. (“Stemmer ‘089”) under 35 U.S.C. § 103(a).

The Examiner stated that:

[Stemmer ‘089] discloses the use of ultraviolet curable adhesive as well as the equivalence of this type of bonding with heat sensitive bonding. It would have been obvious to modify the adhesive of [Wylie ‘223] whereby ultraviolet curable adhesive is used so as eliminate potential damage to the screen and frame from the application of heat. The specific wavelength and application time of the light would clearly have been an obvious design choice based on the specific materials used, tension in the mesh, etc.

Wylie ‘223 does not teach the use of an ultraviolet curable compound/adhesive. Stemmer ‘089 is directed to a “Two-Stage Air Filter with Multiple-Layer Stage and Post Filter Stage.” Stemmer ‘089 teaches a filter element 220 that is manufactured by applying adhesive to both sides of a support structure 224, applying first filtering material 222 to one side of support structure 224 and second filtering material 226 to the other side of support structure 224, and allowing the adhesive to cure using heat, pressure, ultraviolet light, etc. (see Figures 2 and 3).

Claim 19 is in independent form and recites a “method for manufacturing a screen assembly” comprising, in combination with other steps, “applying a predetermined quantity of curable compound onto the portion of the screen disposed within the tapered slot” of a “screen bar frame” and “curing the curable compound to mechanically interlock the screen to the screen frame” wherein the “applying step and the curing step occur at substantially the same time.” Claims 24-26 depend from independent Claim 19.

Claim 29 is in independent form and recites a “method of manufacturing a screen assembly” comprising, in combination with other steps, “applying a predetermined quantity of an ultraviolet curable adhesive onto the mounting area” of a “screen bar frame” and “curing the adhesive to mechanically interlock the screen to the mounting area.” Claims 29-38 and 76 depend from independent Claim 29.

The “method for manufacturing a screen assembly” recited in independent Claim 19 would not have been obvious in view of Wylie ‘223, alone or in any proper combination with Stemmer ‘089 under 35 U.S.C. § 103(a). Wylie ‘223 alone or in any proper combination with Stemmer ‘089 does not disclose, teach or suggest a “method for manufacturing a screen assembly” comprising, in combination with other steps, “applying a predetermined quantity of curable compound onto the portion of the screen disposed within the tapered slot” of a “screen bar frame” and “curing the curable compound to mechanically interlock the screen to the screen frame” wherein the “applying step and the curing step occur at substantially the same time.” At best, the references teach a multi-step process of loading a pre-assembled screen frame having adhesive on a mounting surface onto a blocking table, spreading screen cloth across the mounting surface, melting an adhesive, and pushing the screen with pins so that the screen contacts the adhesive and allowing the adhesive to cool. The melting step takes approximately 7-10 seconds and the cooling step takes approximately 5-15 seconds. The references do not teach these multiple steps occurring at substantially the same time nor the use of an ultraviolet adhesive in this particular process. To transform the method of fabricating an adhesively secured frame assembly of Wylie ‘223 and the two-stage air filter with multiple-layer stage and post-filter stage of Stemmer ‘089 into the method (as recited in Claim 19) would require still further modification, and such modification is taught only by the Applicant’s own disclosure. For example, any combination taught or suggested by the references would require modification so that steps could occur at substantially the same time.

The “method for manufacturing a screen assembly” recited in independent Claim 29 would not have been obvious in view of Wylie ‘223, alone or in any proper combination with Stemmer ‘089 under 35 U.S.C. § 103(a). Wylie ‘223 alone or in any proper combination with Stemmer ‘089 does not disclose, teach or suggest a “method of manufacturing a screen

assembly” comprising, in combination with other steps, “applying a predetermined quantity of an ultraviolet curable adhesive onto the mounting area” of a “screen bar frame” and “curing the adhesive to mechanically interlock the screen to the mounting area.” At best, the combination teaches a method of forming a filter or screen with ultraviolet adhesive by applying the adhesive to an entire surface of screen material and adhering an entire side of the screen material to a support surface. The references further teach repeating this process on the reverse side of the support surface to form a filter or screen. There is no teaching or suggestion in the references to apply ultraviolet curable adhesive along a screen frame to adhere a screen to the frame. To transform the method of fabricating adhesively secured frame assembly of Wylie ‘223 and the two-stage air filter with multiple-layer stage and post-filter stage of Stemmer ‘089 into the method (as recited in Claim 29) would require still further modification, and such modification is taught only by the Applicant’s own disclosure. For example, any combination taught or suggested by the references would require modification so that ultraviolet curable adhesive could be applied to a mounting area of the screen bar frame rather than the screen itself.

Furthermore, the Applicant contends that the Examiner has not shown any motivation to combine or modify Wylie ‘223 and Stemmer ‘089 and that such a combination or modification is therefore improper. A lack of evidence of a motivation to combine is a critical defect in an obviousness argument, because there must be some suggestion, motivation, or teaching for a person of ordinary skill to have combined or modified the references (see Golight, Inc. v. Wal-Mart Stores, Inc., 355 F.3d 1327 (Fed. Cir. 2004)). The showing of a motivation to combine must be clear and particular, and it must be supported by actual evidence (see Teleflex, Inc. v. Ficosa North America Corp., 299 F.3d 1313 (Fed. Cir. 2002)). The Examiner has failed to provide clear and particular evidence of a motivation to combine and/or modify the references. Further, the suggestion to make the combination of Wylie ‘223 and Stemmer ‘089 has been taken from the Applicant’s own specification (using hindsight), which is improper. “Determination of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention” (see Crown Operations Int’l, Ltd. v. Solutia, Inc., 289 F.3d 1367 (Fed. Cir. 2002)). It is improper to reconstruct the Applicant’s claimed invention from the prior art using the Applicant’s claims as “blueprints.”

Accordingly, the method recited in independent Claims 19 and 29, considered as a whole, would not have been obvious in view of Wylie '223 and/or Stemmer '089. A rejection of Claims 19 and 29 over Wylie '223 in view of Stemmer '089 under 35 U.S.C. § 103(a) is improper. Therefore, Claims 19 and 29 are patentable over Wylie '223 in view of Stemmer '089.

Similarly, a method for manufacturing a screen assembly wherein the compound comprises an ultraviolet curable compound (Claim 24) and the ultraviolet curable compound is cured with ultraviolet light (Claim 30) having a wavelength in the range of about 300 to about 450 nanometers (Claims 25, 31) for about 1.0 to 3.0 seconds (Claims 26, 32) would not have been obvious in view of Wylie '223, alone or in any proper combination with Stemmer '089 under 35 U.S.C. § 103(a). There is no teaching or suggestion in the references to apply ultraviolet curable adhesive along a screen bar frame and cure the compound with ultraviolet light having a wavelength in the range of about 300 to 450 nanometers for about 1.0 to 3.0 seconds to adhere a screen to the frame.

Similarly, a method for manufacturing a screen assembly wherein the trimming step, applying step, curing step, and/or tensioning step occur at substantially the same time (Claims 36-38) would not have been obvious in view of Wylie '223, alone or in any proper combination with Stemmer '089 under 35 U.S.C. § 103(a). There is no teaching or suggestion in the references to perform steps, including a trimming step, applying step, curing step, and/or a tensioning step, at substantially the same time.

In addition, dependent Claims 24-26, which depend from independent Claim 19 and dependent Claims 30-38 and 76, which depend from independent Claim 29, are also patentable. See 35 U.S.C. § 112 ¶ 4.

The Applicant respectfully requests withdrawal of the rejection of Claims 24-26, 29-38 and 76 under 35 U.S.C. § 103(a).

The Applicant believes that the present Application is now in condition for allowance. Favorable reconsideration of the Application as amended is respectfully requested.

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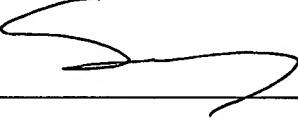
The Applicant respectfully submits that each and every outstanding objection and rejection has been overcome, and the present Application is in a condition for allowance. The Applicant requests reconsideration and allowance of pending Claims 19-20, 22-38 and 71-80.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present Application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this Application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to the Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, the Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extension fees to Deposit Account No. 06-1447.

Respectfully submitted,

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By 

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